DEVELOPMENT SECRETARIAT.

Reviews the Administration Report of the Agricultural Department for the year 1927-28.

READ—

Administration Report of the Agricultural Department for 1927-28 received with letter No. Per. 45—28-29, dated the 1st October 1928, from the Director of Agriculture.

ORDER No. D. 7397-457—A. & E. 115-28-3, DATED 22ND JANUARY 1929.

Recorded.

2. *Personnel.*—Mr. G. H. Krumbiegel continued as Officiating Director till the 30th January 1928 when Dr. Coleman who returned from leave assumed charge of the Department.

3. *Scientific Sections-Chemical Section.* The rise in the prices of agricultural produce and the fall in the cost of artificial fertilisers point to the probability that the application of chemical manures will form a very important feature of future agricultural development and invest manurial experiments with special significance.

A vigorous campaign of demonstrations was responsible for extending the use of artificial especially nitrogenous manures. Manurial experiments were carried on with regard to such important crops as ragi, jola, paddy, sugar-cane, cotton, coffee, arecanut and cocoanut; very striking results have been obtained with irrigated and garden crops indicating that very rapid increase in production is likely to be secured by larger application of manures. In regard to dry crops, the vagaries of the season introduce an inevitable factor of uncertainty, but even here it is probable that profitable increases would result from supplementing our scanty resources in cattle manure by artificial fertilisers.

Recent developments in manure manufacture point to the probability that forms containing nitrogen and phosphoric acid have a wide field before them.

Experiments in feeding stock are confined at present to dairy stock which is comparatively unimportant in the State at present. Government hope that experiments in feeding draught animals will be undertaken when the (Amrit Mahal) Department has a breeding station in the Birur area.

4. *Mycological Section.*—Six thousand acres were sprayed against koleroga. It is interesting to note that a spray mixture cheaper than that previously used and equally effective has been found by experiment. Interesting experiments are in progress with a view to ascertain the manner in which koleroga persists from one season to another and the reason for the apparent impossibility of stamping it out even in isolated areas. Efforts are being made gradually to transfer the stocking and sale of sprayers and spraying materials to co-operative societies. The study of *anaberoga* of arecanut was taken up on systematic lines during the year and it is hoped that with the recent increase of staff it will be possible to make some valuable addition to the rather scanty knowledge on this subject. Progress in coffee work is reported to be not as great as could be desired owing to the laboratory and other buildings on the Coffee Station being yet incomplete. It is reported that it has been definitely established that Blackrot (koleroga) of coffee can be brought completely under control by spraying. Demonstrations in this method of control have created a great demand for sprayers and spraying materials. Similar results have been obtained in regard to the leaf disease of coffee though the most efficient methods have yet to be discovered. Attention is being given to the determination of the best type of sprayers and the most effective spray materials.

With the increase of facilities recently afforded, Government hope that the two other serious diseases of coffee, *viz.*, Dieback and Rootrot, will also be investigated. It is interesting to note that the discovery of intracellular bodies in the cells of leaves attacked by the sandal spike marks a distinct step forward as it seems quite definitely to connect this disease with a number of virus diseases under study in Europe and America where similar bodies have been discovered.

Government have recently strengthened the Mycological and other Scientific Sections and it is hoped that it will be possible to take up the study of a larger number of plant and other diseases.

5. *Entomological Section.*—It is stated that even with seven years' continuous work by the Entomological staff, the raiyats have not taken kindly to the simple measures recommended by the Department against the insect pest, *kamblihula,* which attacks a large number of crops. It may be due partly to the benefits of the work not being very obvious and partly to the lack of proper co-operation in the villages. Government hope that the village panchayets will realise the importance of this work and render effective co-operation.

Jola and grass hoppers are reported to have reappeared in the very areas where they were once prevalent. Measures to control the spread of these major pests are very necessary and needful action should be taken in the matter. It is reported that more or less effective control measures devised against the sugar-cane borer, the avarepod borer and the citrus borer, have not been taken up extensively by the raiyats. In this connection, Government request the Director to impress on the District staff that it is one of their important duties to popularise the results of experiments carried out successfully in the several sections of the Department. It is trusted that with the strengthened District staff and an awakened sense of responsibility on the part of the raiyats and the village panchayets more vigorous and successful efforts will be made in future.

6 *Botanical Section.*—As in previous years, the plant breeding work was confined mainly to hain ragi, cotton, sugar-cane and groundnut. Some of the important crops, for instance paddy and jola, are not yet touched. With the recent strengthening of the staff, Government trust that this important work of breeding will be steadily expanded till it embraces all the more important crops.

The difficulty in the popularisation of improved strains has been the danger of seeds getting mixed up in the field. This retards expansion by making it well nigh impossible to utilise raiyat's crops for seed. A more effective correlation between the breeder or breeding station and the raiyat, with inspection and some measure of supervision at sowing time and harvest, seems essential if the valuable results of the Department's work should bear full fruit. Over 2,000 maunds of pure cotton seed were prepared in this way during the year under review. The introduction of the Cotton Pressing and Ginning Act is expected to help in getting better results in this direction.

As regards groundnut, there is a clear indication that for some time to come there will be a continuous expansion of the area under this crop, especially the short season varieties which not only admit of a second crop on the same land but require less time and labour in harvesting—advantages which more than outweigh a smaller gross yield than is got with the spreading types. Important experiments are in progress aiming at a combination of the advantages of the spread and bunch types.

7. *Engineering Section.*—The work of this section is the least satisfactory owing chiefly to insufficient equipment and the weakness of the staff. The Agricultural Engineer's time is mostly taken up with teaching. The help given in the recent order of reorganisation will probably enable the section to show better results. The field for tractor ploughing in the State seems to be limited in view of its expensiveness and the fact that it is suited only for areas far larger than those of the holdings usually met with in Mysore. Only co-operative action can offer sufficient scope; but even this is doubtful on account of the capital required and the greater expensiveness of tractor ploughing. The strengthened staff of the Section, it is hoped, will be able to devote more attention to the designing and testing of improved implements and to the very important subject of irrigation which has not yet been touched.

8. *Agricultural Education.*—Interest in agricultural education is rapidly increasing in the shape of a great demand for more agricultural schools. District Boards are coming forward with an offer to bear their quota of expenditure for such schools. At the initiative of the Hassan District Board, a school has been opened at Hassan recently. An increase in the number of such schools will no doubt bring into existence a large number of trained men; and it should be possible for Mysore Agriculture to absorb them with benefit to itself. It is probable that with the introduction of more intensive methods such as are envisaged in the larger use of manures, etc., there will

be an increasing scope for the profitable utilisation of the training of these men and also a growing demand for their services from owners of large estates. Also a change of orientation might be secured by selecting students only from the land-owning classes who have facilities for direct application of their knowledge on their own lands. Agricultural Co-operative Societies also would be in a position to take up some men and these societies must be made a feature of our agricultural development. It would be a pity if all these trained men should drift into teaching and other professions; their equipment would and should fit them more for agriculture than for pedagogy. However, some of these men may be usefully employed in the Education Department for teaching agriculture and some others in the Revenue Department also as sheikdars, etc.

9. *Live Stock Section. Improvement of Cattle.*—The whole question of improving draught and milch cattle is under investigation by a Committee appointed at the instance of the Director, and presided over by him. The recommendations of the Committee are awaited with interest.

10. *Sheep Improvement.*—Rapid improvement of sheep by the introduction of foreign strains seems dependent on the importation of a hardier stock than the merino which seems unsuited to Mysore conditions. At the same time, experiments have proved that striking improvement both in quantity and quality of wool is possible by the introduction of foreign strains.

11. *Experimental Farms. Hebbal Farm.*—Experiments were continued with better results than in the previous year on the cultivation and manuring of ragi, sugarcane and paddy.

12. *Marthur Farm.*—Manurial experiments on arecanut have shown that fertilizers containing nitrogen, phosphoric acid and potash are suited to the crop. As regards sugar-cane, H.M. 544 cane seems to be the one best suited for the Malnad area. Paddy experiments with Dhaincha as a green manure go to show that Dhaincha holds out a distinct promise of usefulness. Attempts are being made to supply better yielders of pepper by the introduction of Malabar varieties. Scarcity of labour in Malnad impedes the expansion of profitable cultivation of dry land crops.

13. *Babbur and Nagenahalli Farms.*—These have been recently declared purely experimental farms. Manurial experiments on cocoanut have been started in the Babbur Farm. Experiments on manuring paddy carried on on the Nagenahalli Farm have so far shown that a combination of green manure and chemical manures yields the most promising results.

14. *The Coffee Experimental Station.*—With a view to ensure the close co-operation of coffee planters, an Advisory Committee was constituted in March 1928. A programme of work for the next twenty years was also approved.

15. *General Demonstration Work.*—It is hoped that the increase in the District Staff resulting from the reorganisation of the Department recently ordered will be taken advantage of to extend the Department's activities in the demonstration of improved implements, seeds and manures. The demand for improved ploughs and plough shares seems to be on the increase. The Director is requested to examine the question of handing over the business entirely to rural co-operative societies engaged in agricultural work.

Government appreciate the spirit with which District Boards are coming forward with liberal grants to spread agricultural knowledge by demonstrations. Co-operative Societies have contributed in no small measure to agricultural improvement in the State by the sale of improved implements, seeds and manures. One hundred and twenty-nine societies were engaged in this work at the end of the year under review. But, perhaps, the most significant and encouraging feature is the readiness that Village Panchayets are coming forward to help the department's activities.

16. *The Agricultural and Experimental Union.*—Government have recently increased the subvention to the Union and hope that the Union will be vivified and made use of as an auxiliary of the Department for field experiments, verification of results and dissemination of knowledge.

17. *Central Implement Depot.*—There has been a steady increase in the total turnover and the value of sales amounted to Rs. 93,672-15-0. The recovery of the outstandings is not satisfactory.

18. *Financial Oil Cake Advances.*—The adjustment of the advances under this head has been pending for a long time and early action should be taken to collect arrears. The Director has been recently authorised to write off arrears in individual cases when they are irrecoverable and the amount does not exceed Rs. 200.

19. *Conclusion.*—The administration of the Department was on the whole satisfactory. The Agricultural Department has important work on its programme during the next few years. The items of outstanding urgency are closer co-ordination between the several sections of the Department and non-official and semi-official agencies and expansion of the scope of the breeding work to include some of the more important crops not taken up hitherto, such as rice, pulses and millets. The scheme of agricultural colonies has to be carefully and cautiously elaborated and brought into operation.

Mysore must not be slow to profit from the rich suggestiveness of the Report of the Royal Commission for Agriculture and our Department of Agriculture will no doubt adopt on its programme such of the recommendations as can be usefully taken up in Mysore. Government are confident that the Department, which has been recently strengthened, will, under the able direction of Dr. Coleman, address itself with vigour and success to a solution of the important problems before it.

N. RAMA RAO,
Secretary to Government,
Development Departments.

Veterinary Dispensaries to be kept open from 3 to 5 p.m. on shandy days.

Read—

Subject No. 14, regarding keeping open Veterinary Dispensaries between 12 noon and 5 P. M. in places where shandies are held, brought forward for discussion at the Representative Assembly held at Mysore in October 1928.

ORDER NO. D. 7353—C. V. 49-28-2, DATED 19TH JANUARY 1929.

Government are pleased to direct that Veterinary Dispensaries at places where they exist be kept open from 3 to 5 P. M. on shandy days. The Director is requested to issue necessary instructions to the Superintendent, Civil Veterinary Department in the matter.

N. RAMA RAO,
Secretary to Government,
Development Departments.

LAW DEPARTMENT.

Members of the Public Accounts Committee for 1928-29.

ORDER NO. REL. 207-268—L. C. 10-28-2, DATED 1ST FEBRUARY 1929.

The Public Accounts Committee for the official year 1928-29 will consist of —

Messrs.—D. H. Chandrasekharaiya, B.A., LL.B.
H. B. Gundappa, B.A., B.L.
D. S. Mallappa, and
S. C. Mallaiya,

who have been elected by the non-official members of the Legislative Council, and of —

Mr. B. Srinivasa Iyengar, B.A., B.L.,
Financial Secretary to Government, and
Mr. N. S. Subba Rao, M.A. (Cantab), BAR-AT-LAW,
Director of Public Instruction.